FOURTH SEMI-ANNUAL STATUS REPORT

ON WORK UNDER GRANT NsG-297-63

FOR THE PERIOD BETWEEN

15th FEBRUARY - 15th AUGUST 1964

OBJECTIVES OF RESEARCH

To continue the existing co-operation between the University of Manchester and the Japanese Lunar Group, under the leadership of Professor S. Miyamoto, in the University of Kyoto, Japan; and to help maintain a programme of lunar photography with the 24-inch Kyoto reflecting telescope, with the aim of extending the photographic coverage of lunar phases from an observatory 135° East of Pic-du-Midi, France where the Moon crosses the Kyoto meridian 9 hours before its upper transit of the Pic meridian. The Moon is therefore well placed for photographic observation in Japan before it rises over the French Pyrénées.

PROGRESS OF WORK

This programme of lunar photography has been enthusiastically pursued by the Japanese Lunar Group, and details of the work are summarised below.

	Date	No. of Negatives Exposed at Kyoto
1964	February	
	17	33
	20	25
	21	17

	Date	No. of Negatives Exposed at Kyoto
1964	February	
	22	56
	26	105
	27	70
	28	16
	29	76
	March	
	2	30
	4	5
	5	35
	16	4
	17	30
	18	38
	19	7
	21	52
	22	29
	23	49
	25	67
	26	54
	27	22

Date		No. of Negatives Exposed at Kyoto
1964	March	
	29	54
	April	
	4	6
	17	78 G
	20	30
	21	51 G
	23	46
	May	
	6	10
	7	9
	14	7
	15	35
	16	63
	19	84 G
	20	82 G
	21	5
	25	56
	26	39

	Date	No. of Negatives Exposed at Kyoto
1964	May	
	29	75
	30	92
	31	67
	June	
	1	31
	6	30
	17	70
	18	70
	23	37
	28	35
	30	13
	July	
	2	35
	3	70 G
	16	7
	21	47
	22	54
	23	84
	24	84

	Date	No. of Negatives Exposed at Kyoto
1964	August	
	2	37
	3	85
	4	14
	5	17
	14	49
	15	10

Note: G denotes nights when conditions were said to be 'good'

A total of 2571 lunar negatives were exposed at Kwasan Observatory during the period under review and most of these were despatched to the Aeronautical Chart and Information Center of the U.S.A.F. in St. Louis, Mo.

There is, however, an unfortunate and serious aspect to the work in Kyoto. Kwasan Observatory - as the Japanese astronomers would be the first to agree - is not favourably situated. It occupies a site that is elevated a modest 234 metres above sea level and, worse, it shares the smoke polluted atmosphere of the adjacent city of Kyoto. Under such conditions and bearing in mind the growth of the city it is difficult to

anticipate much improvement in lunar image quality despite the patience, skill and enthusiasm of the Japanese astronomers.

We, therefore, are looking forward to an extension of this work, using a larger instrument at a high-altitude observatory far removed from Kyoto, as outlined in the Third Semi-Annual Status Report (15th August 1963 - 15th February 1964)

Zdĕnek Kopal,
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